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ABSTRACT

In fall 1995, North Carolina's Gaston College undertook a study of space utilization at the college's main campus. A local architectural firm was contracted to document the exact usage of space on campus, establish space requirements to meet present circumstances, and identify future needs. To determine current usage, plots of current and original space layouts were examined, with space being assigned to specific units. Three procedures were used to establish present space requirements. First, computer reports of class schedule were analyzed to determine the extent to which classrooms were utilized; second, questionnaires were distributed to all academic units regarding space utilization; and third, interviews were conducted with department heads regarding current space needs. To project future space needs, college enrollment projections were made by benchmarking the age distributions of current students to projections of the age of the service county population. This analysis indicated that age groups most likely to attend college will decline in population, while those least likely to attend will increase. Utilizing the enrollment projections, current square footage space needs were multiplied by a 5- and 10-year growth factor to determine the required increase or reduction of square footage in the future. Finally, adjustments were made to the projections based on more subjective factors, such as local program conditions and social, economic, and political trends. Data tables are included. The survey instrument is appended. (HAA)

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ED 402 956

A SPACE UTILIZATION STUDY AT GASTON COLLEGE:

METHODOLOGY AND PROCEDURES

BY

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January 1997
Gaston College
Dallas, North Carolina

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INTRODUCTION

In the Fall of 1995 Gaston College undertook a project to conduct a space utilization study for the main campus, located in Dallas, N. C. That study will be used to develop a Facilities Plan, intended to constitute a major portion of the forthcoming College Master Plan, which is a requirement of our accrediting agency, the Southern Association of Colleges and Schools.

A local architectural firm was engaged to conduct the study, using data supplied by the College's Research and Planning Office and various other units. The architects sought to: 1) document the exact current usage of every space on campus; 2) establish space needs required to meet present circumstances; and 3) identify future space needs.

While the first two tasks - documenting current space usage and establishing current space needs - were important undertakings, the heart and soul of the project was the determination of future space needs, so as to determine if the College will require new buildings to accommodate increased enrollments.

The purpose of this article is to discuss the methodology used to conduct the study. Thus, tables shown in this text are exhibits only, used to illustrate methodology rather than to present findings. Special emphasis is placed on methodology used to determine future space needs, inasmuch as this determination was the most crucial task of the project.

UNITS OF ANALYSIS

For each project task, the planning units depicted in the organizational chart (Figure 1) served as the units of analysis. This approach accounted for all of the space on campus.

IDENTIFICATION OF CURRENT SPACE USAGE

The starting point for documenting current space usage was examination of CAD/CAM plots of the original space layouts (Figure 2), followed by examination of the space in its current configuration. Through discussions with administrators, faculty, and staff, most of the space could easily be assigned to specific units. However, some of the space (classrooms and conference rooms, for example) was used in common. A series of color coded drawings was used to specify exactly how space is currently used.

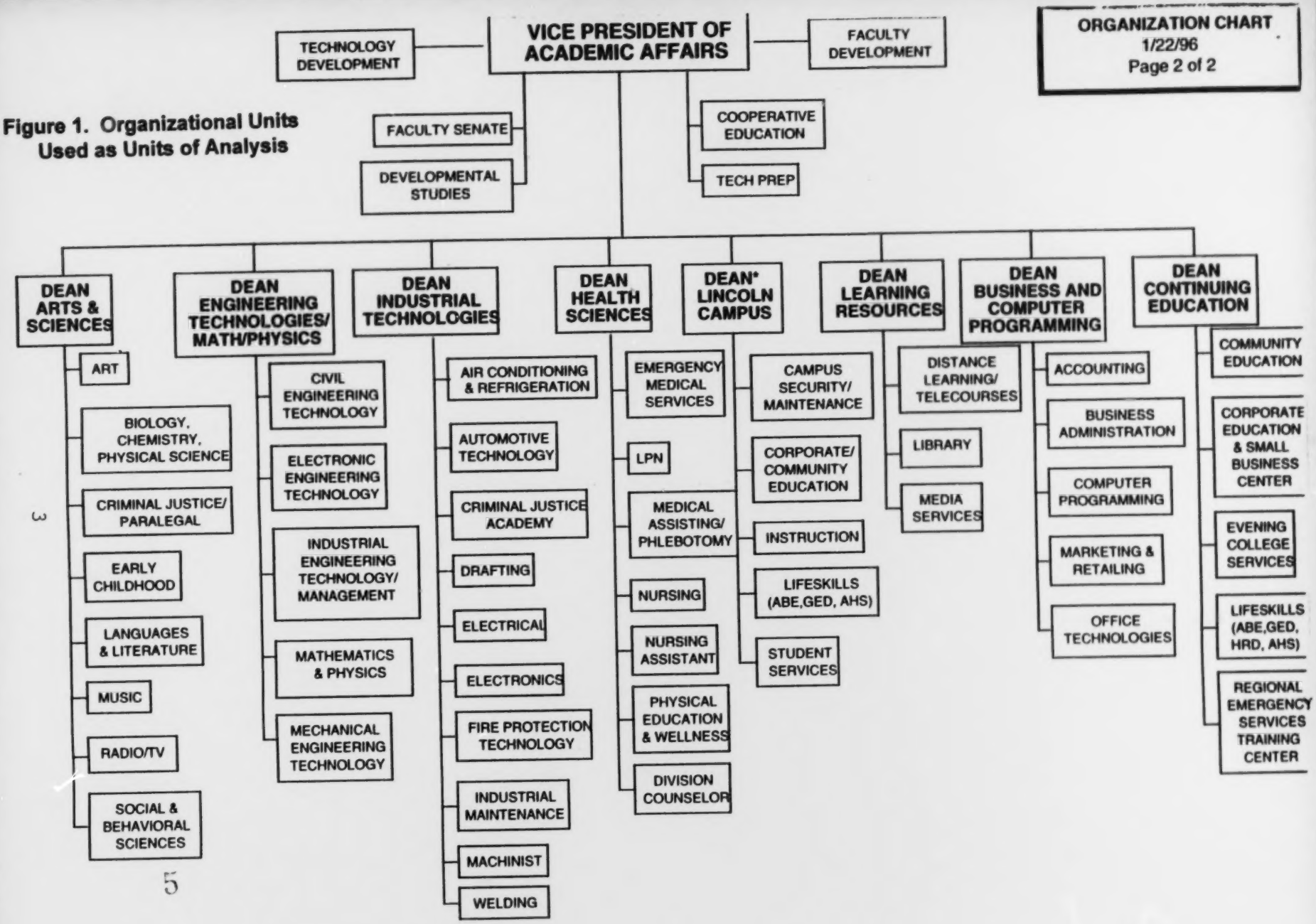
What emerged was an accurate and up-to-date snapshot of present space conditions at Gaston College. This snapshot allowed the analysis of the equitable allocation of space, the analysis of the adequacy of existing space utilization, and constituted a baseline against which projections of future space needs could be compared. As such, it represented an indispensable starting point.

DETERMINING SPACE NEEDS REQUIRED TO MEET CURRENT CIRCUMSTANCES

Essentially, three procedures were used to establish space requirements for current circumstances. The first procedure was the analysis of computer reports to determine the extent to which classrooms were utilized. One computer report (Figure 3) reported on class size, showing the number of

ORGANIZATION CHART
1/22/96

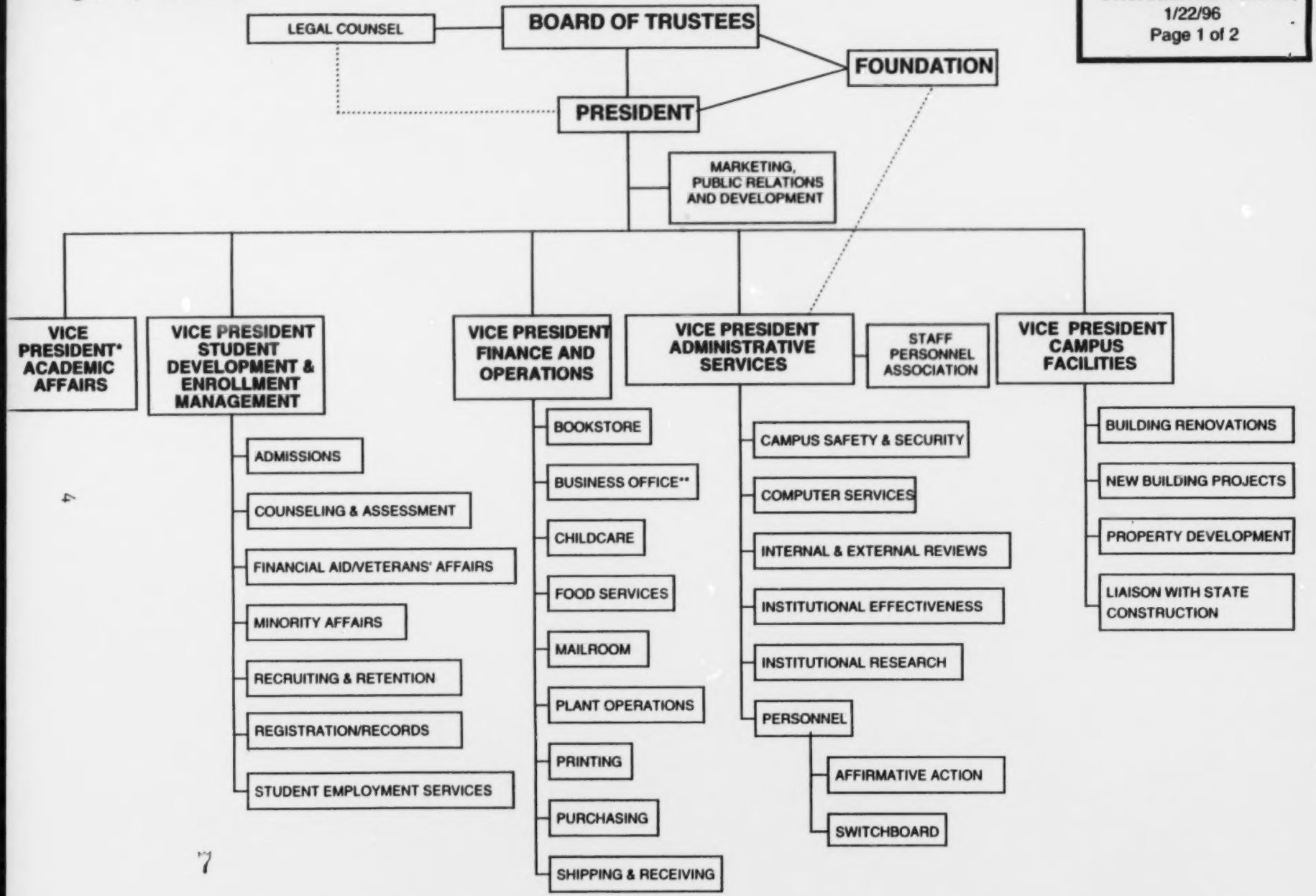
Figure 1. Organizational Units Used as Units of Analysis



*THESE FUNCTIONS ARE COORDINATED THROUGH THE DALLAS CAMPUS.

Figure 1, Continued

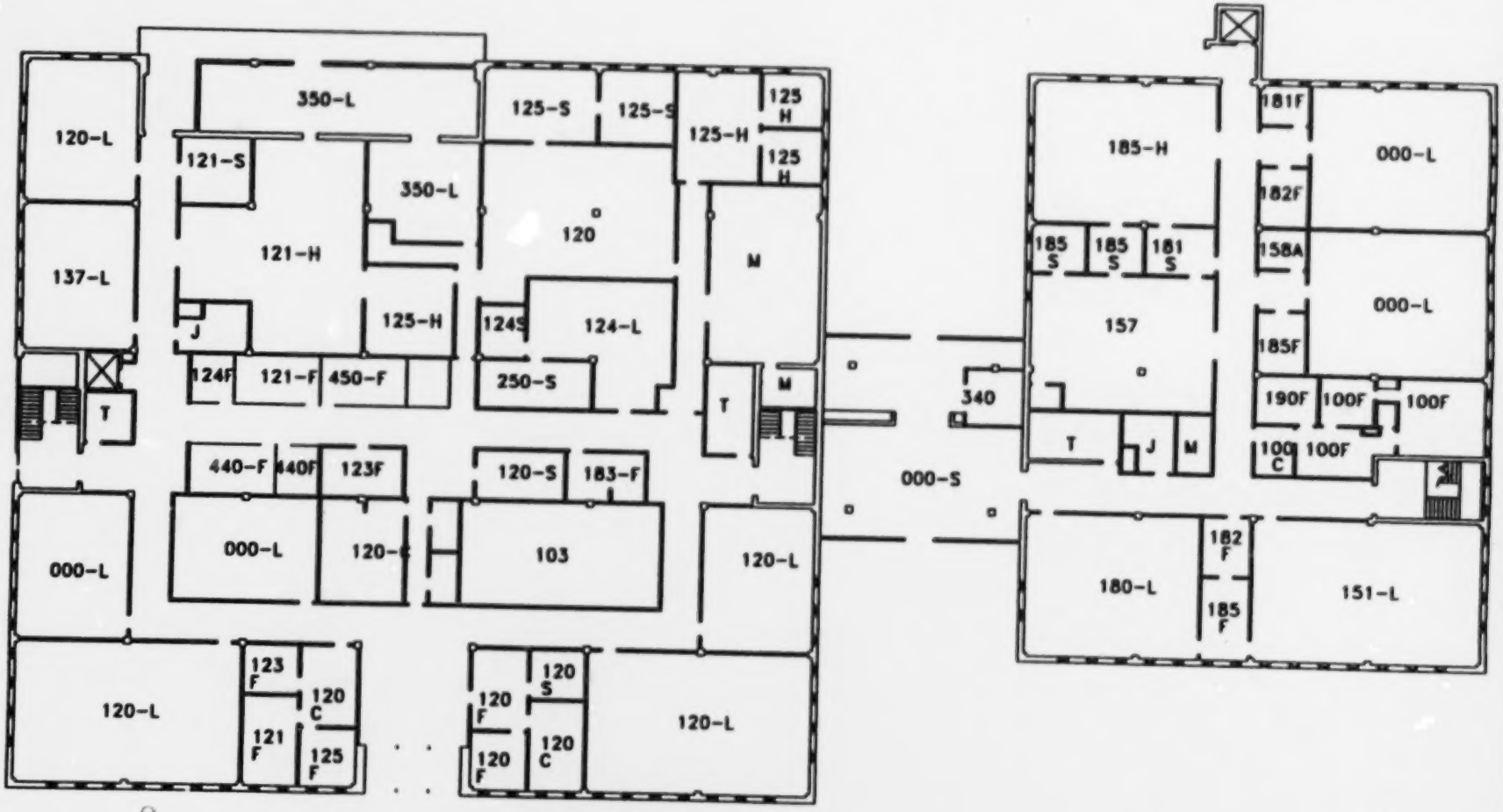
ORGANIZATION CHART
1/22/96
Page 1 of 2



*SEE ATTACHED

**GASTON & LINCOLN CAMPUS

Figure 2. CAD Plots of Original Space Layouts



9

10

COMER TECHNICAL BUILDING
FIRST FLOOR PLAN

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SHEET A2	GASTON COLLEGE MASTER PLAN STUDY	COMER TECHNICAL BUILDING DATE: 1/30/96	Martin Beal Anthony & Johnson

Figure 3. SPACE UTILIZATION REPORT

BUILDING	ROOM	CAP	ACTUAL	DAY	TIME		CLASS		
RAY P. CRAIG BLDG.	118	30	30		10:00-10:50	AM	MAT	96	03
		30	24		11:00-11:50	AM	MAT	96	04
		30	16		12:00-12:50	PM	MAT	96	05
		30	17		05:30-07:35	PM	MAT	96	06
				TUE	10:00-10:50	AM	MAT	96	03
					11:00-11:50	AM	MAT	96	04
					12:00-12:50	PM	MAT	96	05
		30	20		05:30-07:35	PM	MAT	96	07
				WED	08:00-08:50	AM	ORI	96	01
					09:00-09:50	AM	ORI	96	02
					10:00-10:50	AM	MAT	96	03
					11:00-11:50	AM	MAT	96	04
					12:00-12:50	PM	MAT	96	05
					05:30-07:35	PM	MAT	96	06
				THU	10:00-10:50	AM	MAT	96	03
					11:00-11:50	AM	MAT	96	04
					12:00-12:50	PM	MAT	96	05
					05:30-07:35	PM	MAT	96	07
				FRI	08:00-08:50	AM	ORI	96	01
					09:00-09:50	AM	ORI	96	02
					10:00-10:50	AM	MAT	96	03
					11:00-11:50	AM	MAT	96	04
					12:00-12:50	PM	MAT	96	05
		TOTAL	DAYS: 5		HOURS: 25.8333		CLASSES: 7		
	119	20	20	MON	08:00-08:50	AM	RED	95	01
		20	11		09:00-09:50	AM	RED	94	01
		20	20		10:00-10:50	AM	RED	95	02
		20	19		11:00-11:50	AM	RED	95	03
		20	14		12:00-12:50	PM	RED	95	04
		30	10		05:30-06:45	PM	CHM	110	03
				TUE	08:00-08:50	AM	RED	95	01
					09:00-09:50	AM	RED	94	01
					10:00-10:50	AM	RED	95	02
					11:00-11:50	AM	RED	95	03
					12:00-12:50	PM	RED	95	04
		20	7		05:30-07:35	PM	RED	95	05
				WED	08:00-08:50	AM	RED	95	01
					09:00-09:50	AM	RED	94	01
					10:00-10:50	AM	RED	95	02
					11:00-11:50	AM	RED	95	03
					12:00-12:50	PM	RED	95	04
					05:30-06:45	PM	CHM	110	03
				THU	08:00-08:50	AM	RED	95	01
					09:00-09:50	AM	RED	94	01
					10:00-10:50	AM	RED	95	02
					11:00-11:50	AM	RED	95	03
					12:00-12:50	PM	RED	95	04
					05:30-07:35	PM	RED	95	05

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students in each class compared to the number of student stations. This established, for each classroom in each building, whether or not current classes were fully utilizing existing capacity. Obviously, such data could also be used to match courses with traditionally large enrollments to large rooms and vice versa. A second computer report (Figure 4) analyzed classroom usage by time of day, thus measuring the intensity of classroom usage. In this way, underutilization of current space could be determined immediately.

A second procedure for analyzing current space needs was the distribution of a questionnaire (see the Appendix) to each unit shown in the organization chart. In the third procedure, the department heads were interviewed regarding their current space needs, with their completed questionnaire constituting the working documents used to facilitate the interview. The results of one interview are illustrated in Table 1.

DETERMINING FUTURE SPACE NEEDS

An essential first step in projecting future space needs was the projection of College enrollments, a task carried out by the College's Research and Planning Department. After rejecting trend analysis and multiple regression techniques, the Planning and Research Department decided to benchmark age distributions of current students to projections of population by age. We had great confidence in the use of population projections (made by the North Carolina Office of State Planning), because they are based on actuarial tables of people currently living in the service counties (adjusted for in and out-migration).

Figure 4. SCHEDULED ROOM USE FOR 95/09

CAS 119 CLASSROOM - TABLES, - CAPACITY 24

TIME...	MON.....	TUE.....	WED.....	THU.....	FRI.....
08:00AM	RED-95-01 20	RED-95-01 20	RED-95-01 20	RED-95-01 20	RED-95-01 20
08:30AM	RED-95-01 20	RED-95-01 20	RED-95-01 20	RED-95-01 20	RED-95-01 20
09:00AM	RED-94-01 11	RED-94-01 11	RED-94-01 11	RED-94-01 11	RED-94-01 11
09:30AM	RED-94-01 11	RED-94-01 11	RED-94-01 11	RED-94-01 11	RED-94-01 11
10:00AM	RED-95-02 20	RED-95-02 20	RED-95-02 20	RED-95-02 20	RED-95-02 20
10:30AM	RED-95-02 20	RED-95-02 20	RED-95-02 20	RED-95-02 20	RED-95-02 20
11:00AM	RED-95-03 19	RED-95-03 19	RED-95-03 19	RED-95-03 19	RED-95-03 19
11:30AM	RED-95-03 19	RED-95-03 19	RED-95-03 19	RED-95-03 19	RED-95-03 19
12:00PM	RED-95-04 14	RED-95-04 14	RED-95-04 14	RED-95-04 14	RED-95-04 14
12:30PM	RED-95-04 14	RED-95-04 14	RED-95-04 14	RED-95-04 14	RED-95-04 14
01:00PM					
01:30PM					
02:00PM					
02:30PM					
03:00PM					
03:30PM					
04:00PM					
04:30PM					
05:00PM					
05:30PM	CHM-110-03 10	RED-95-05 7	CHM-110-03 10	RED-95-05 7	
06:00PM	CHM-110-03 10	RED-95-05 7	CHM-110-03 10	RED-95-05 7	
06:30PM	CHM-110-03 10	RED-95-05 7	CHM-110-03 10	RED-95-05 7	
07:00PM		RED-95-05 7		RED-95-05 7	
07:30PM		RED-95-05 7		RED-95-05 7	
08:00PM					
08:30PM					
09:00PM					
09:30PM					
10:00PM					
10:30PM					

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Table 1.
Gaston College Facility / Program Assessment Report
153 Medical Assisting Technology/Phlebotomy
Interview with Norma Lippert
March 21, 1996

Location	Space Name	Rm. #	Existing SF	Currently Needed SF
Existing Spaces				
Health-Upper Level	Laboratory	105	814	400
Health-Upper Level	Office-Secr.		86	
Health-Upper Level	Office	113	140	
Health-Upper Level	Office	103	147	
Health-Upper Level	Office	103	294	
Health-Upper Level	Storage		47	
Health-Upper Level	Classroom	104		
Currently Needed				
	Secretary/Receptionist Office			100
	Office-Faculty			120
	Office-Faculty			120
	Toilet (for testing),adj. to lab space			50
Total			1528	790

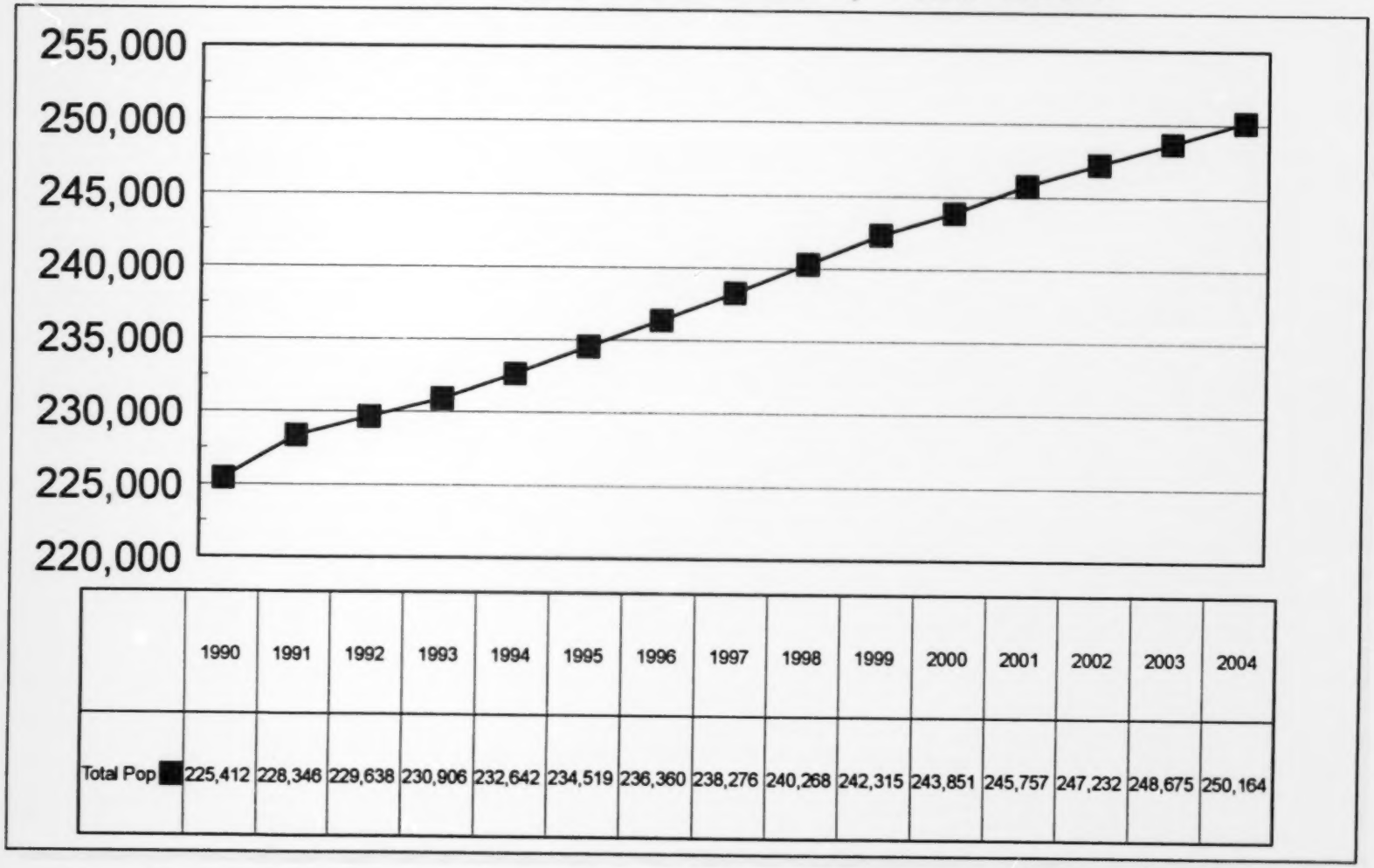
Additional programs expected, data, comments, etc.:

A first glance at the population projections suggests that college enrollments are likely to increase, because the adult population (18+) in the two-county service area is projected to increase (Figure 5). However, when the population projections are analyzed by age groups (Figures 6-13) it is seen that the age groups most likely to attend college are projected to decrease in population, while those least likely to attend college are projected to increase in population.

Table 2 illustrates the benchmarking process by which percentages of age groups currently attending Gaston College were applied to population projections by age to derive projections of College enrollments. Table 3 illustrates the process whereby the projections of College enrollments were disaggregated to individual curriculum programs. Figure 14 graphically depicts the projected College enrollments, showing that enrollments will decrease until the year 2000; although enrollments will then begin to increase, they will not return to their 1995 level through the year 2004. Utilizing the enrollment projections, current square footage space needs were multiplied by a five-year growth factor and then by a ten-year growth factor to determine the required increase or reduction of square footage needs for the next five and ten-year periods (Table 5).

Realizing that the process thus far had been a mechanical one, the next phase was designed to allow subjective judgment to adjust the projections to reflect: 1) local program conditions, such as plans to add additional faculty, upgrade equipment and/or facilities, etc.; and 2) social, economic, and political

FIGURE 5. TOTAL POPULATION (18-65+) IN GASTON AND LINCOLN COUNTIES, 1990-2004



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Pop	225,412	228,346	229,638	230,906	232,642	234,519	236,360	238,276	240,268	242,315	243,851	245,757	247,232	248,675	250,164

16 Source: Office of State Planning

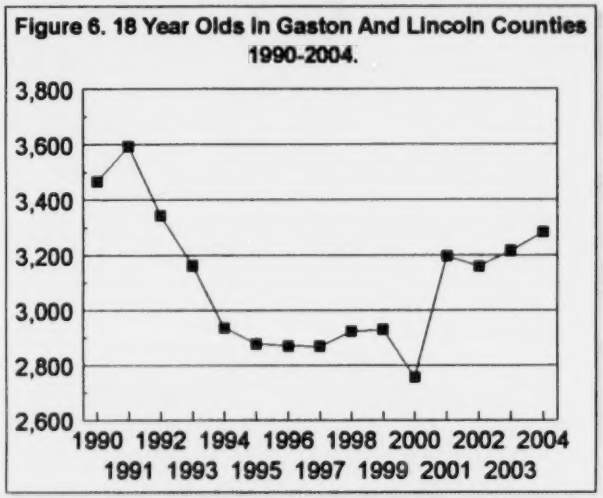


Figure 6. 18 Year Olds in Gaston And Lincoln Counties
1990-2004.
3,800
3,600
3,400
3,200
3,000
2,800
2,600
1990 1992 1994 1996 1998 2000 2002 2004
1991 1993 1995 1997 1999 2001 2003

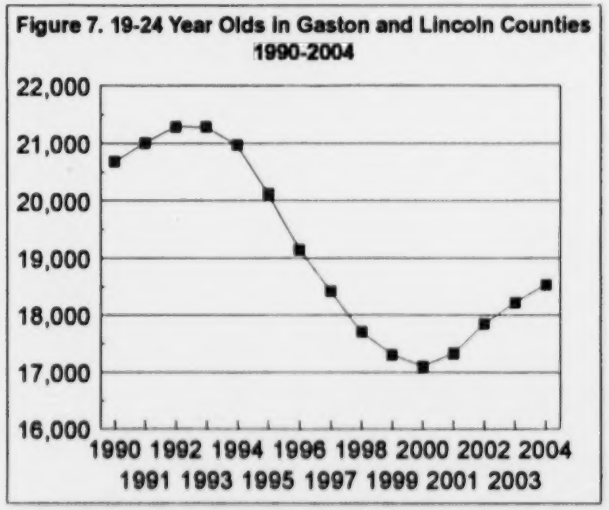


Figure 7. 19-24 Year Olds in Gaston and Lincoln Counties
1990-2004
22,000
21,000
20,000
19,000
18,000
17,000
16,000
1990 1992 1994 1996 1998 2000 2002 2004
1991 1993 1995 1997 1999 2001 2003

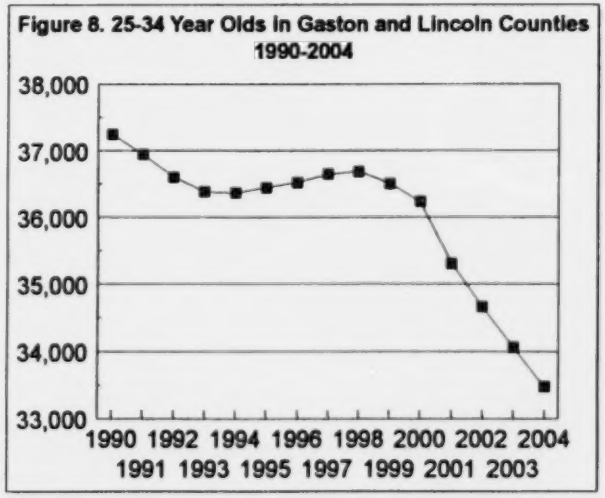


Figure 8. 25-34 Year Olds in Gaston and Lincoln Counties
1990-2004
38,000
37,000
36,000
35,000
34,000
33,000
1990 1992 1994 1996 1998 2000 2002 2004
1991 1993 1995 1997 1999 2001 2003

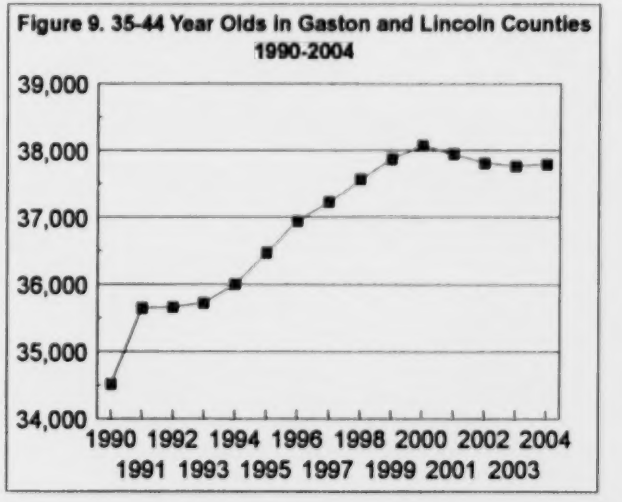


Figure 9. 35-44 Year Olds in Gaston and Lincoln Counties
1990-2004
39,000
38,000
37,000
36,000
35,000
34,000
1990 1992 1994 1996 1998 2000 2002 2004
1991 1993 1995 1997 1999 2001 2003

Figure 10. 45-54 Year Olds in Gaston and Lincoln Counties
1990-2004

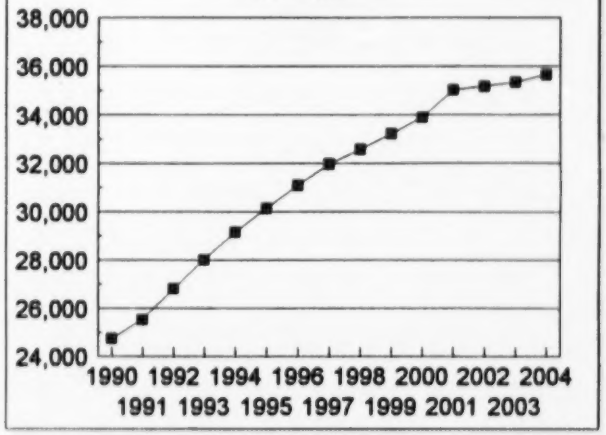


Figure 11. 55-59 Year Olds in Gaston and Lincoln Counties
1990-2004

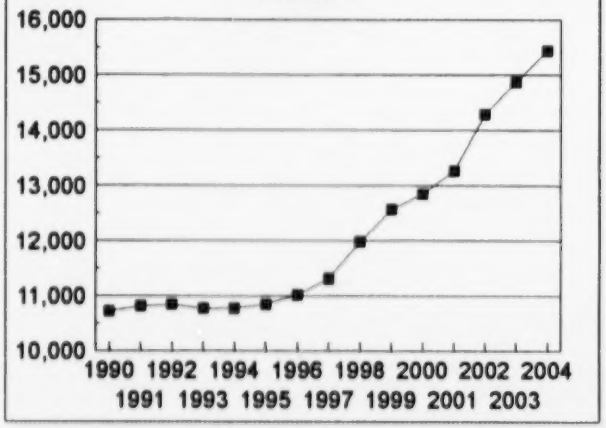


Figure 12. 60-64 Year Olds in Gaston and Lincoln Counties
1990-2004

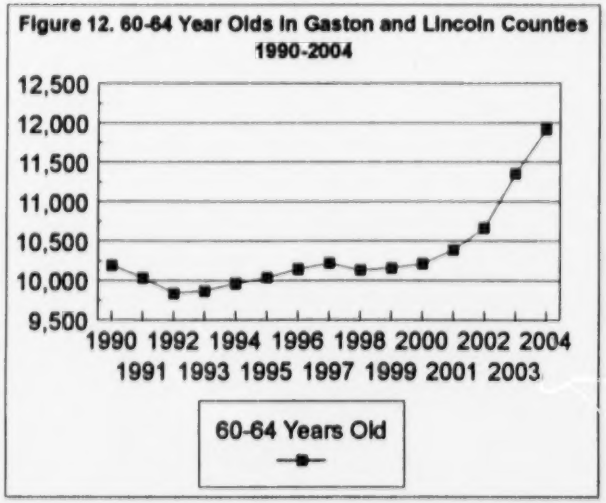


Figure 13. 65+ Year Olds in Gaston and Lincoln Counties
1990-2004

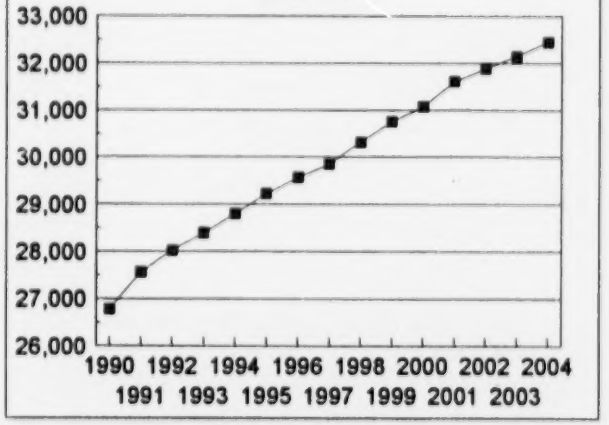


TABLE 2. FALL CURRICULUM FTE ENROLLMENTS BY AGE, DALLAS CAMPUS, END OF QUARTER.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
AGE	1995			1996	1997	1998	1999	2000	2001	2002	2003	2004
		% of	% of Area	Area pop *	Area pop *	Area pop *	Area pop *	Area pop *	Area pop *	Area pop *	Area pop *	Area pop *
	ftes	Col pop	population	Column 4	Column 4	Column 4	Column 4	Column 4	Column 4	Column 4	Column 4	Column 4
18	360	0.1275	0.125087	359	359	366	367	345	400	395	402	411
19-24	1354	0.4795	0.067303	1,289	1,240	1,192	1,165	1,151	1,166	1,201	1,226	1,248
25-34	618	0.2188	0.016957	619	621	622	619	616	599	588	578	568
35-44	341	0.1208	0.00935	345	348	351	354	356	355	354	353	353
45-54	124	0.0439	0.004115	128	132	134	137	139	144	145	145	147
55-59	14	0.0050	0.00129	14	15	15	16	17	17	18	19	20
60-64	5	0.0018	0.000498	5	5	5	5	5	5	5	6	6
65+	8	0.0028	0.000274	8	8	8	5	9	9	9	9	9
TOTAL	2,824	1.00	- -	2,768	2,728	2,693	2,667	2,638	2,695	2,715	2,738	2,761

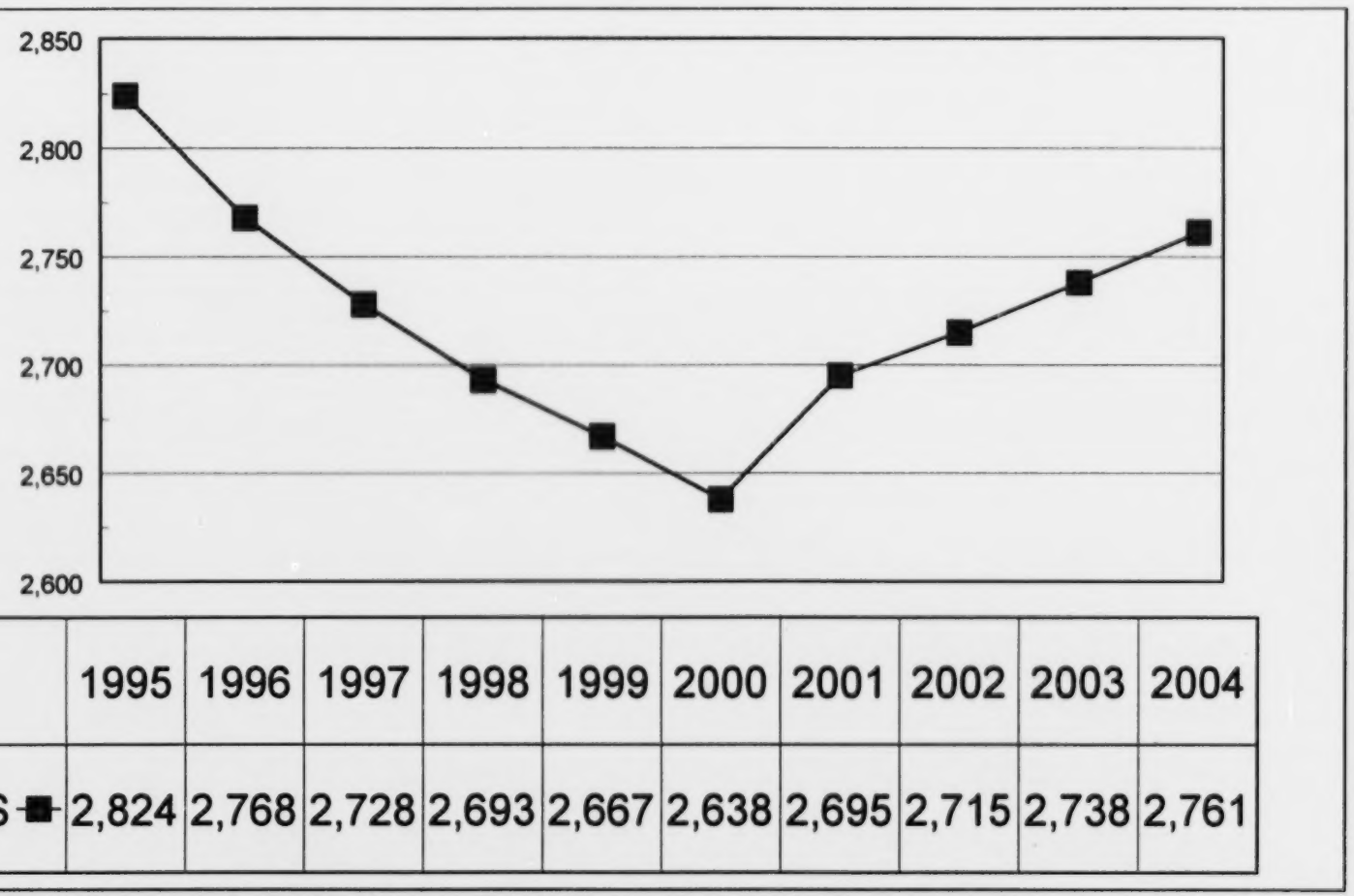
(1). Age groupings used as units of analysis.
(2). Number of FTE enrollments by age group at the College in Fall 1995.
(3). Percent of FTE enrollments by age group at the College in Fall 1995.
(4). Percent by age group (FTEs) of the population in Gaston and Lincoln Counties attending Gaston College. This percentage represents the College's market share of the population.
(5-13). For each age group, projected population is multiplied by #4 (#4 represents the College's market share of the population). The resulting numbers are the projected enrollment for each age group. Total projected enrollment for the College is obtained by summing the projected enrollments of the age groups.

TABLE 3. DISAGGREGATING COLLEGE ENROLLMENT PROJECTIONS TO CURRICULUM PROGRAMS.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		1995		1996	1997	1998	1999	2000	2001	2002	2003	2004
			% of total	tot col	tot col	tot col	tot col	tot col	tot col	tot col	tot col	tot col
			fte	fte enroll	fte enroll	fte enrol	fte enroll	fte enroll	fte enrol	te enrol	fte enroll	fte enroll
DEPARTMENT	PREFIX	FTES	enrollment	x fte %	x fte %	x fte %	x fte %	x fte %	x fte %	x fte %	x fte %	x fte %
BUSINESS & COMPUTER PROGRAMMING												
Accounting	ACC	118	0.04178	116	114	113	111	110	113	113	114	115
Business Administration		192.5	0.068159	189	186	184	182	180	184	185	187	188
. Business	BUS											
. Computer Applications	CAS											
. Economics	ECO											
Computer Programming	CSC	189	0.066919	185	183	180	178	177	180	182	183	185
Marketing & Retailing	MKT	6.3	0.002231	6	6	6	6	6	6	6	6	6
Office Technologies	OSC	111.5	0.039479	109	108	106	105	104	106	107	108	109
Unknown	UNK	32	0.01133	31	31	31	30	30	31	31	31	31
TOTALS		2,824	1	2,768	2,728	2,693	2,667	2,638	2,695	2,715	2,738	2,761

Column 1- Identifies the Curriculum departmeni, along with specific programs offered by that department.
Column 2- Shows the prefixes of courses offered by the department.
Column 3- Presents the FTES generated by the department in the Fall of 1995.
Column 4- Shows the percent of total college FTE enrollment produced by the department.
Columns 5 through 13- Show the projected department enrollment, calculated by applying the benchmark percentage from column 4 to projected College FTES (see TOTALS, the last row).

FIGURE 14. ENROLLMENT PROJECTIONS FOR THE DALLAS CAMPUS: END OF QUARTER FTES , CURRICULUM FALL 1995 - FALL 2004



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
FTES ■	2,824	2,768	2,728	2,693	2,667	2,638	2,695	2,715	2,738	2,761

SOURCE: BASED ON POPULATION PROJECTIONS BY THE OFFICE OF STATE PLANNING.

Table 5. CURRENT INVENTORY OF SPACE WITH FUTURE SPACE PROJECTIONS

INDEX NO.	DEPARTMENT/ SERVICE AREA	CURRENT SPACE (s.f.) 1995	CURRENT FTE IN 1995	PROJ'D. FTE IN 2000	PROJ'D. FTE IN 2005	GROWTH FACTOR 2000	GROWTH FACTOR 2005	PROJ'D. SPACE (s.f.) 2000	PROJ'D. SPACE (s.f.) 2005
112	**BIOLOGY / CHEMISTRY/ PHYSICAL SCIENCE**								
	Office/Conf.	1762	224.2	209	219	0.9322	0.9768	1643	1721
	Heavy Labs	5788	224.2	209	219	0.9322	0.9768	5396	5654
	Light Labs/Class.	2019	224.2	209	219	0.9322	0.9768	1882	1972
	Storage/Other	362	224.2	209	219	0.9322	0.9768	337	354
	Subtotal	9931						9258	9701
113	**CRIMINAL JUSTICE PARALEGAL**								
	Office/Conf.	364	96	90	94	0.9375	0.9792	341	356
	Heavy Labs	0	96	90	94	0.9375	0.9792	0	0
	Light Labs/Class.	745	96	90	94	0.9375	0.9792	698	729
	Storage/Other	0	96	90	94	0.9375	0.9792	0	0
	Subtotal	1109						1039	1085
114	**EARLY CHILDHOOD**								
	Office/Conf.	163	47.6	44	47	0.9244	0.9874	151	161
	Heavy Labs	0	47.6	44	47	0.9244	0.9874	0	0
	Light Labs/Class.	469	47.6	44	47	0.9244	0.9874	434	463
	Storage/Other	184	47.6	44	47	0.9244	0.9874	170	182
	Subtotal	816						755	806
115	**LANGUAGES & LITERATURE**								
	Office/Conf.	1341	290.4	271	284	0.9332	0.9780	1251	1311
	Heavy Labs	0	290.4	271	284	0.9332	0.9780	0	0
	Light Labs/Class.	2865	290.4	271	284	0.9332	0.9780	2674	2802
	Storage/Other	0	290.4	271	284	0.9332	0.9780	0	0
	Subtotal	4206						3925	4113
116	**MUSIC**								
	Office/Conf.	0	24.2	23	24	0.9504	0.9917	0	0
	Heavy Labs	0	24.2	23	24	0.9504	0.9917	0	0
	Light Labs/Class.	1524	24.2	23	24	0.9504	0.9917	1448	1511
	Storage/Other	172	24.2	23	24	0.9504	0.9917	163	171
	Subtotal	1696						1611	1682

trends deemed to have a significant impact on future space needs. Accordingly, the study team conducted division-wide meetings in which department heads responded to the enrollment projections. Based on their expert opinions, projections were adjusted either upward or downward. To assist in these negotiations, Fall 1995 enrollment by age was calculated for each Curriculum department (Table 6) in order to judge whether or not the department served an age grouping significantly different from that served by the College as a whole.

The facilities study concluded with the presentation of preliminary findings to various groups on and off campus and to a "panel of experts." Emerging from this process was a general confirmation of the demographic trends and a consensus that market research, marketing of programs, and retention activities were essential. There was also an understanding that, due to the aging of the population, Continuing Education must play a more prominent role in the College. The "panel of experts" stressed that Continuing Education must increase off-site and in-plant customized programs with business and industry, that it must go into the plants, the churches, poolrooms, civic clubs, and the housing projects to recruit those who need to be made more competitive.

Obviously, then, the study's findings and implications extend far beyond considerations related to physical space. Conclusive evidence emerged indicating that the College must take action in a wide variety of areas, not only in facility renovation, building construction, program development, and scheduling of classes, but also in marketing, retention, and program development. Gaston College intends to take appropriate actions.

TABLE 6. 1995 FALL ENROLLMENT BY AGE BY DEPARTMENT, DALLAS CAMPUS

DEPARTMENT	PREFIX	Duplicated Head Cnt	18	19-24	25-34	35-44	45-54	55-59	60-64	65+
ARTS & SCIENCES										
Art										
. Art	ART	90	11	57	8	10	3	1	0	0
. Ceramics	CER	25	0	4	1	8	5	2	1	4
. Design	DES	15	2	7	1	1	1	0	0	3
. Photography	PHO	8	0	3	1	4	0	0	0	0
Total		138	9%	51%	8%	17%	7%	2%	1%	5%
Biology, Chemistry, Physical Science										
. Biology	BIO	456	59	243	94	45	15	0	0	0
. Chemistry	CHM	97	5	53	24	11	3	1	0	0
. Geography	GEO	33	2	26	2	2	1	0	0	0
. Physical Science	PHS	23	1	17	3	2	0	0	0	0
. Zoology	ZOO	31	1	14	8	7	1	0	0	0
Total		640	11%	55%	20%	10%	3%	0%	0%	0%
Criminal Justice/Paralegal										
. Criminal Justice	CJC	384	47.0	203	99	26	9	0	0	0
. Paralegal	LEX	115	7	60.0	25	17	4	2	0	0
Total		499	11%	53%	25%	9%	3%	0%	0%	0%
Developmental Studies										
. Orientation	ORI	91	27	55	5.0	3	0	1	0	0
. Reading	RED	216	48	128	24	11	3	2	0	0
. Math	MAT	518	95	262	95	54	9	3	0	0
Total		825	0.206	0.539	0.15	0.082	0.015	0.007	0	0
Early Childhood	EDU	185	1.1%	42.7%	30.3%	17.3%	5.9%	1.1%	1.1%	0.5%

APPENDIX I

GASTON COLLEGE
MASTER PLAN STUDY
ACADEMIC DEPARTMENT
QUESTIONNAIRE

Martin
Boal
Anthony &
Johnson
ARCHITECTS

The Board of Trustees of Gaston College has engaged the services of Martin Boal Anthony & Johnson, Architects to conduct a Master Plan study for Gaston College to establish the course of growth for the next five and ten year periods. A plan such as this must reflect the insights and visions of those directly involved with Gaston College. Please answer the following questions as they relate to your particular department. Use a separate sheet for comments if necessary.

1. On the attached sheet you will find the current number of proprietary spaces, shared spaces, and office/instructional support spaces currently used by students in your department. What changes in the proportion of spaces do you foresee in the next five years? Example: If your instructional area is requiring more computer labs to effectively teach the courses that are being required by your instructional market then you would foresee a higher percentage of computer labs to classrooms.

2. What changes to the way in which instruction will be delivered in your department do you foresee in the next five years?

3. Do you perceive that student interest in your department is growing, declining,or stable? Please explain your answer.

4. What do you consider to be the most important factors affecting the growth or decline of your department?

5. During the next five years, do you foresee any special equipment needs which would affect your space requirements? If yes, please explain.

6. Does your department work closely with local industries? Are industry participants involved on or off campus?

7. Does your department need to be located in close proximity to other departments? If so, please describe which departments and why.

8. Are the present instructional spaces adequate for your current student population? If not, please explain.

9. Please list which courses, if any, taught by your department require special room accommodations and whether the present accommodations are adequate.

10. What programs would you like to see your department offer within the next five years that are not presently provided on campus?

11. What changes in your department's instructional methods due to advances and availabilities of technology in the next five years do you foresee?

12. What technologies not presently available on campus do you feel would be of benefit to the college as a whole?

13. What do you believe to be the most positive change in the physical condition of your department within the last five years.

14. What do you believe to be the least positive change in the physical condition of your department within the last five years.?

15. What times of day are most of the courses taught within your department? Why are they scheduled at these times?

16. Do you see a need for any changes to your present schedule of courses and when they are offered? If yes, what changes do you foresee and why?

17. Are there any particular environmental concerns with respect to your department and the courses offered?

DEPARTMENT:_____

PERSON COMPLETING THIS QUESTIONAIRE:_____